

AN ANNOTATED LIST OF RECENT ADDITIONS TO THE CETACEAN
COLLECTION IN THE QUEENSLAND MUSEUM

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Paterson, R.A. 1994 06 01: An annotated list of recent additions to the cetacean collection in the Queensland Museum. *Memoirs of the Queensland Museum* 35(1): 217-223. Brisbane. ISSN 0079-8835.

Recent additions to the cetacean collection in the Queensland Museum, including the Museum of Tropical Queensland at Townsville, represent 4 mysticete and 13 odontocete species. Two of the odontocetes, *Stenella longirostris* and *S. attenuata*, have not been previously recorded from Queensland. The collection is dominated by species which frequent or migrate to tropical and sub-tropical coastal waters. □ *Cetaceans, Queensland Museum collection, recent additions.*

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Important material has been added to the Queensland Museum (QM) cetacean collection in the past decade. Registration number, location, collector or donor, method of discovery, date of collection or discovery and material held as well as the order of classification follow Paterson (1986). Specimens identified by Dr Peter Arnold of the Museum's Townsville branch (the Museum of Tropical Queensland) and held there or at the Department of Zoology, James Cook University are indicated by an asterisk. Many of those specimens were obtained from animals drowned in protective shark nets set in the Townsville/Magnetic Island region.

Mysticete and odontocete larynges are illustrated here as part of a continuing study of the cetacean larynx at the QM.

Mammals registered in the QM collection are prefixed with the letters J or JM and QBFP and QDEH are acronyms for the Queensland Boating and Fisheries Patrol and Queensland Department of Environment and Heritage.

SYSTEMATICS

Suborder MYSTICETI
Family BALAENOPTERIDAE

***Balaenoptera musculus* Linnaeus, 1758**
(Blue whale)

MATERIAL

JM10415, St Lawrence (22°19'S, 149°38'E), R.A. Paterson, S. Van Dyck, and P. Cross, K. Fowler (QBFP), beachcast, 24.ii.94: skull (with the exception of nasals and premaxillae), mandible, majority of post-cranial skeleton, partial baleen.

***Balaenoptera acutorostrata* Lacépède, 1804**
(Minke whale)

MATERIAL

*JM3861, Hook Reef (19°50'S, 149°13'E), James Cook University staff, died after 'entrapment' in Hook Reef lagoon, 28.xi.82: complete skeleton and baleen; JM5434, Granite Bay, Noosa (26°23'S, 153°06'E), RAP, SVD; beachcast, 5.viii.86: complete skeleton, partial baleen; JM7301, Big Sand Hill, Moreton Is. (27°13'S, 153°23'E), RAP, P. Paterson, beachcast, 11.vi.87: complete skeleton, partial baleen; JM8513, Worralie Creek, Fraser Is. (25°08'S, 153°06'E), RAP, SVD, P. Gillespie, stranded, 16.xi.90: complete skeleton and baleen, larynx (Fig. 1); JM8808, Wathumba Creek, Fraser Is. (24°59'S, 153°13'E), RAP, SVD, beachcast, 15.viii.91: skull and mandible, partial baleen; JM9029, Maroon, Great Sandy Strait (25°37'S, 152°52'E), RAP, SVD, beachcast, 26.x.91: skull and mandible, partial baleen; JM9453, Tangalooma Wrecks, Moreton Is. (27°11'S, 153°22'E), QDEH, drowned in hold of former whale chaser: mandible, partial skull, post-cranial skeleton and baleen.

REMARKS

With the exception of JM3861 the specimens were those of juvenile or recently born animals. Horwood (1990) noted that most series of minke whale strandings contained a high proportion of immatures.

Best (1985) detailed the external characters of Southern Hemisphere minke whales and described a diminutive (Type 3) form. Arnold, Marsh & Heinsohn (1987) discussed the occurrence of minke whales in east Australian waters and described JM3861 in detail. It is a Type 3 specimen and they termed it a dwarf minke

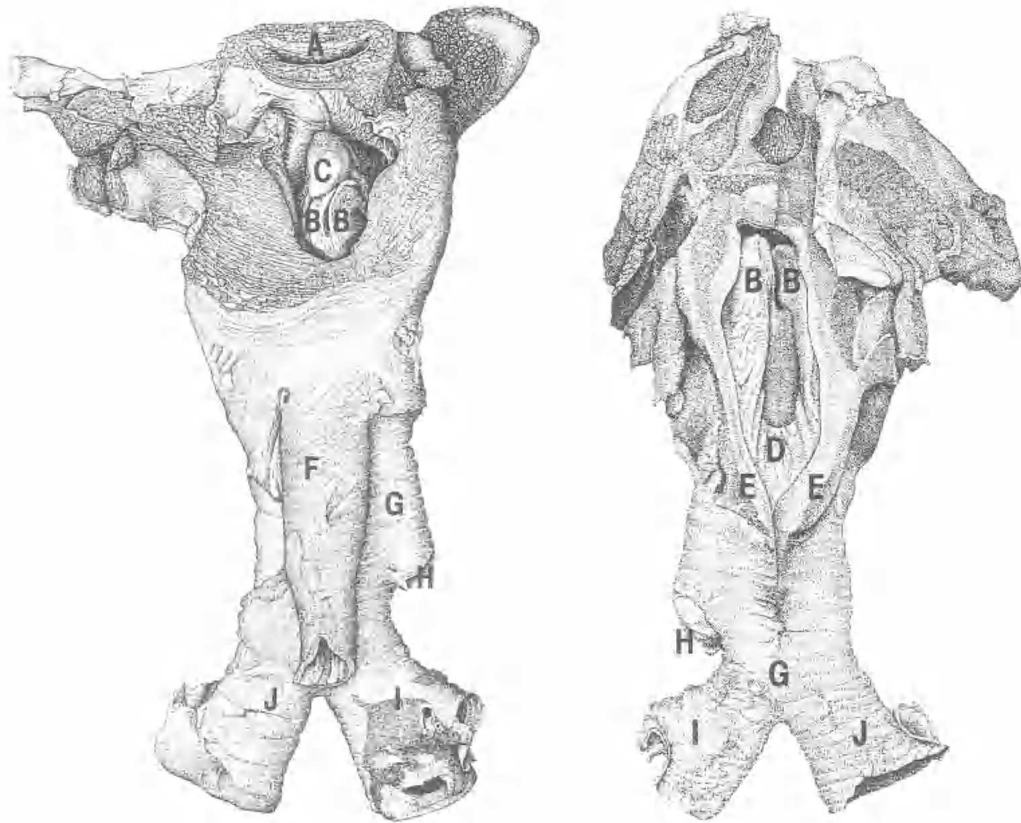


FIG. 1. *Balaenoptera acutorostrata*, JM8513. Larynx from dorsal aspect (left) and ventral aspect (right). A, pharynx; B-B paired arytenoid cartilages; C, epiglottic cartilage; D, ventral diverticulum, opened after splitting thyro-arytenoid muscle (E-E); F, oesophagus; G, trachea; H, eparterial bronchus; I, right main bronchus; J, left main bronchus.

whale. The reproductive status of JM3861 was described by Marsh (1985). The external colour patterns and cranial appearances of Type 1 and 3 specimens in the collection at Brisbane are illustrated in Figs 2,3.

***Balaenoptera borealis* Lesson, 1828**
(Sei whale)

MATERIAL

JM4918, 'Whale Beach', Tuan (25°40'S, 152° 54'E), RAP, P. Paterson, stranded in 1940s, 21.iv.84: partial basi-cranium, tympanic bulla.

REMARKS

J21713 was listed as *B. borealis* by Paterson (1986) but correctly identified as *B. edeni* (Bryde's whale) by Paterson & Van Dyck (1988).

***Megaptera novaeangliae* Borowski, 1781**
(Humpback whale)

MATERIAL

JM5252, Spitfire Creek, Moreton Is. (27°04'S, 153°27'E), V.C. Bushing, RAP, beachcast, 2.xi.84: partial skull and post-cranial skeleton. Described by Bushing (1991); JM7302, Brown's Rocks, Fraser Is. (24°47'S, 153°16'E), RAP, SVD, stranded, 3.vii.89: skull, mandible and partial post-cranial skeleton, baleen. Described by Paterson & Van Dyck (1991); JM7303, Moon Point, Fraser Is. (25°13'S, 152°59'E), V. Hislop, stranded, 17.x.89: complete skeleton, baleen and larynx. Described by Paterson & Van Dyck (1991); Quayle (1991); JM8318, Tangalooma, Moreton Is. (27°11'S, 153°22'E), D. Lovey, whaling operations: dried penis; JM8658, Eager's Creek, Moreton Is. (27°07'S, 153°27'E), B. McLarty (QDEH), RAP, SVD, stranded, 19.vii.91: skull, mandible, baleen and larynx. Described by Paterson et al. (1993).



FIG. 2 *Balaenoptera acutorostrata*. Upper, JM8513, flipper and body colouration of Type 1 form; Lower, JM7301, flipper and body colouration of Type 3 form.

Suborder ODONTOCETI
Family ZIPHIIDAE

Ziphius cavirostris Cuvier, 1823
(Cuvier's beaked whale)

MATERIAL

JM5264, Agnes Water (24°10'S, 151°33'E), RAP, SVD, beachcast, 30.i.86: damaged skull. Described by Paterson & Van Dyck (1990); JM7677, Cape Hillsborough (20°56'S, 149°03'E), P. Arnold, K. Saalfeld, beachcast, 8.vi.89: skull and mandible.

REMARKS

Radiographs demonstrate paired anterior mandibular teeth and numerous needle-shaped rudimentary teeth in both jaws (Fig.4).

Mesoplodon densirostris de Blainville, 1817
(Dense-beaked whale)

MATERIAL

JM6460, Noosa River mouth (26°23'S, 153°06'E), SVD, beachcast, 4.vi.86: complete skeleton. Described by Paterson & Van Dyck (1990); JM8807, Point Lookout, North Stradbroke Is. (27°26'S, 153°33'E), RAP, SVD, beachcast, 22.x.91: complete skeleton and

larynx; JM9640, Cathedral Beach, Fraser Is. (25°10'S, 153°13'E), J. Ford (QDEH), P. Stumkat, K. Williams, beachcast, 21.vi.92: complete skeleton and larynx.

REMARKS

JM8807 and JM9640 were described by Paterson et al. (1993).

Mesoplodon layardii Gray, 1865
(Straptooth beaked whale)

MATERIAL

JM6198, Whitsunday Passage (20°20'S, 148°50'E), K. Saalfeld, R. Hughes, A. Smith, beachcast, 18.viii.86: complete skeleton. Described by Paterson & Van Dyck (1990); JM8498, Lady Elliott Is. (24°07'S, 152°43'E), D. Lee (QDEH), beachcast, 19.iv.90: skull and mandible.

Family PHYSETERIDAE

Physeter macrocephalus Linnaeus, 1758
(Sperm whale)

MATERIAL

JM7307, Dundowran (25°18'S, 152°46'E), RAP, SVD, stranded, 30.iv.84: squid beaks from JM4420.

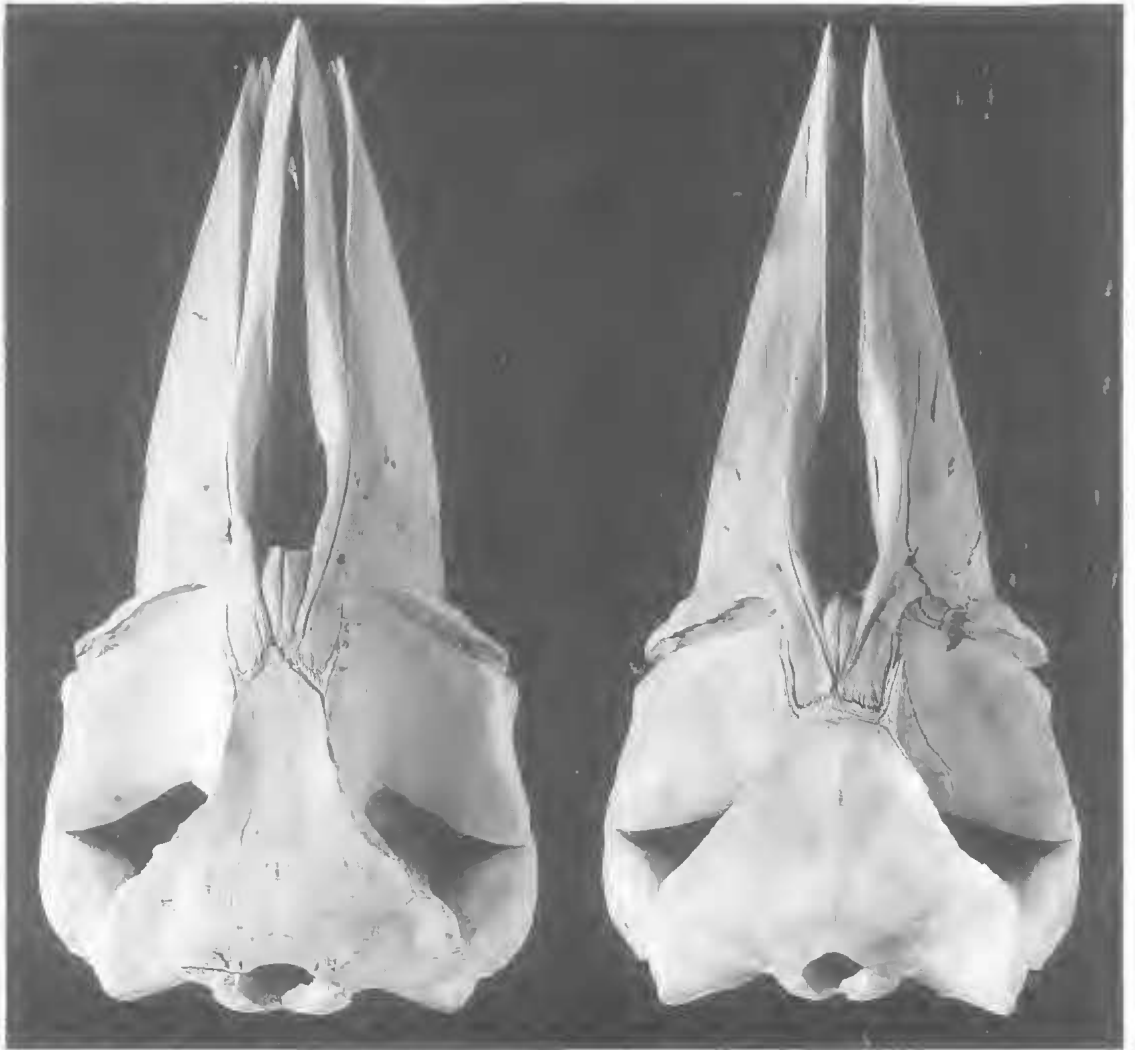


FIG. 3. *Balaenoptera acutorostrata*. Left, JM8513 (Type 1); Right, JM8808 (Type 3). Dorsal cranial structures in immature specimens.

Described by Paterson (1986); JM9920, Main Beach, North Stradbroke Is. (27°27'S, 153°32'E), RAP, SVD, G. Jaques, beachcast, 6.vii.93: skull, partial post-cranial skeleton and larynx (Fig.5).

***Kogia breviceps* de Blainville, 1838**
(Pygmy sperm whale)

MATERIAL
JM5698, Moore Park, Bundaberg (24°52'S, 152°21'E), C. Limpus (QDEH), SVD, stranded, 15.i.87: complete skeleton, reproductive tract (in spirit); JM5699 (calf of JM5698, in spirit); JM8796,

Yellow Patch, Morceton Is. (27°02'S, 153°26'E), RAP, stranded, 6.vii.88: skull; JM10000, Mudjimba Beach (26°37'S, 153°06'E), QBFP, C. Cowell, beachcast, 8.ix.93: complete skeleton and viscera; JM10001 (foetus of JM10000, in spirit).

Family STENIDAE

***Sousa chinensis* Osbeck, 1757**
(Indopacific humpback dolphin)

MATERIAL
*JM4701, Picnic Bay, Magnetic Is. (19°11'S,

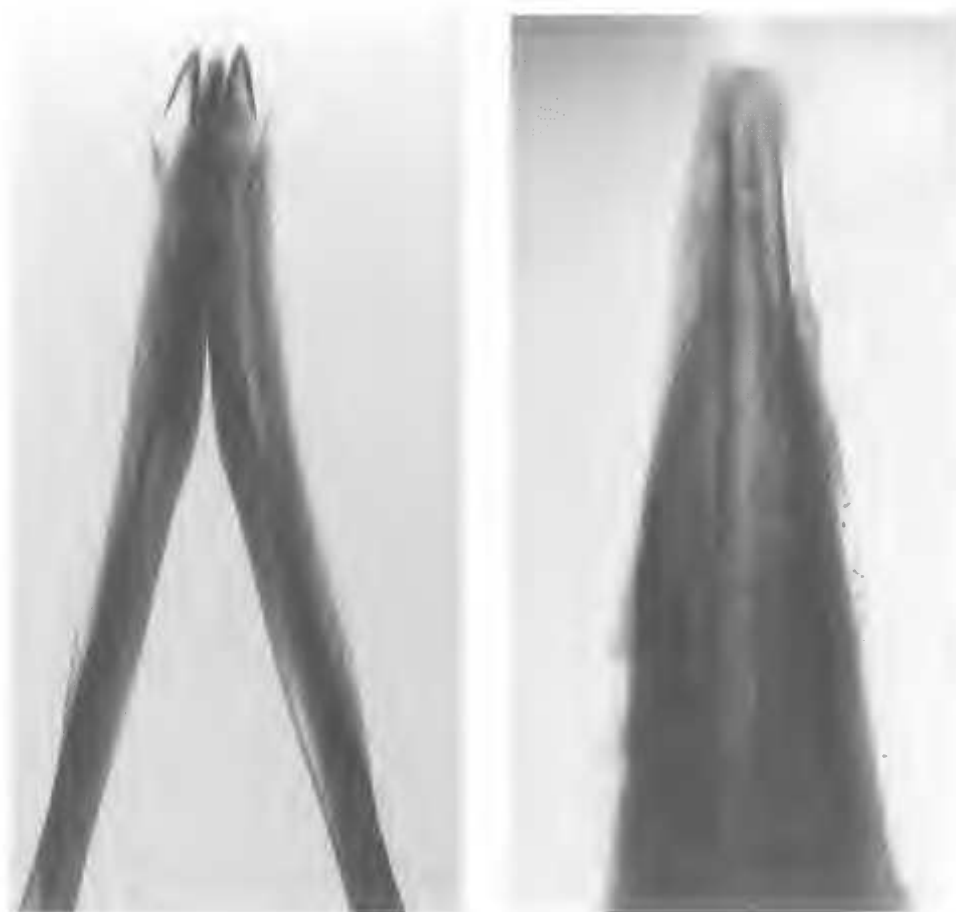


FIG. 4 *Ziphius cavirostris*, JM7677. Radiographs of mandible (left) and maxilla (right) demonstrating paired anterior mandibular teeth and numerous needle-like rudimentary teeth in both jaws of this female specimen. There were at least 34 rudimentary teeth in each jaw. Some were lost before the radiographs were taken.

146°50'E), 9.x.69; *JM4703, Horseshoe Bay, Magnetic Is. (19°07'S, 146°51'E), 4.iii.70; *JM4710, Horseshoe Bay, Magnetic Is. (19°07'S, 146°51'E), 4.ii.71; *JM4711, Kissing Point, Townsville (19°14'S, 146°48'E); *JM4717, Horseshoe Bay, Magnetic Is. (19°07'S, 146°51'E), 24.x.71; *JM4728, Florence Bay, Magnetic Is. (19°07'S, 146°53'E), 16.viii.75; *JM4731, Horseshoe Bay, Magnetic Is. (19°07'S, 146°51'E), 19.i.76; *JM4737, Rowe's Bay, Townsville (19°13'S, 146°47'E), 5.vii.78; *JM4738, Rowe's Bay, Townsville (19°13'S, 146°47'E), 30.vii.84; JM5333, Adder Rock, North Stradbroke Is. (27°26'S, 153°32'E), RAP, beachcast, 27.ix.85: skull and mandible; JM5355, M.M. Bryden: complete skeleton; JM6434, M.M. Bryden: skull; *JM7678, Rowe's Bay, Townsville (19°13'S, 146°47'E), 22.i.90; JM10416, Ayr (19°34'S, 147°24'E), Sea World Staff, stranded, 1.iii.94: juvenile (in spirit).

Family GLOBICEPHALIDAE

Globicephala macrorhynchus Gray, 1846 (Shortfin pilot whale)

MATERIAL

*JM4732, *JM4733, Conway Beach, Proserpine (20°29'S, 148°45'E), 25.i.86.

Peponocephala electra Nishiwaki & Norris, 1966 (Melonhead whale)

MATERIAL

*JM4702, Mission Beach (17°56'S, 146°06'E), 22.x.69; *JM4730, Crystal Beach, Mt Spec (18°56'S, 146°19'E), 3.xii.75; JM5573, Eager's Creek, Morcton Is. (27°07'S, 153°27'E), QDEH, beachcast, 19.xii.86:

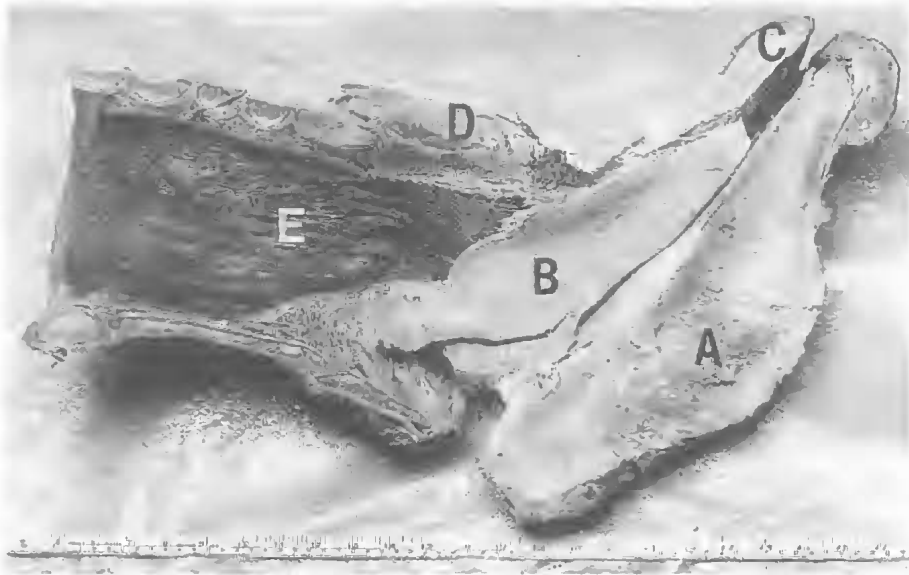


FIG. 5 *Physeter macrocephalus*, JM9920. Larynx in longitudinal section, medial aspect, with thyroid cartilage removed. A, cpiglottic cartilage; B, arytenoid cartilage-carpus; C, arytenoid cartilage-rostral end; D, cricoid cartilage; E, tracheal lumen.

skull and mandible; JM6464, Moreton Is. (27°11'S, 153°24'E), QDEH, beachcast, 24.vii.77: complete skeleton; JM6577, Dunwich, North Stradbroke Is. (27°30'S, 153°24'E), Sea World staff, stranded, 6.vii.88: complete skeleton; JM10112, Rainbow Beach (25°50'S, 153°04'E), P. Stumkat, K. Williams, 1.vii.93, beachcast: complete skeleton; JM10113, Dept. of Veterinary Anatomy, University of Queensland: complete skeleton.

Family DELPHINIDAE

Grampus griseus Cuvier, 1812 (Risso's dolphin)

MATERIAL

JM9452, Amity Point; North Stradbroke Is. (27°24'S, 153°26'E), SVD, J. Conrad, beachcast, 10.ii.92: complete skeleton.

Orcaella brevirostris Gray, 1866 (Irrawaddy River dolphin)

MATERIAL

*JM4700, Pallarenda, Townsville (19°12'S, 146°46'E), 23.ix.69; *JM4704, Horseshoe Bay, Magnetic Is. (19°07'S, 146°51'E), 23.iv.71; *JM4705, *JM4706, Horseshoe Bay, Magnetic Is. (19°07'S, 146°51'E), 23.iv.70; *JM4707, Pallarenda, Townsville (19°12'S, 146°46'E), 3.x.70; *JM4708, Horseshoe

Bay, Magnetic Is. (19°07'S, 146°51'E), 13.xii.70; *JM4709, Horseshoe Bay, Magnetic Is. (19°07'S, 146°51'E), 23.i.71; *JM4720, Kissing Point, Townsville (19°14'S, 146°48'E), 18.iii.72; *JM4721, Horseshoe Bay, Magnetic Is. (19°07'S, 146°51'E), 21.iv.72; *JM4722, *JM4723, Pallarenda, Townsville (19°12'S, 146°46'E), 18.viii.74; *JM4727, The Strand, Townsville (19°16'S, 146°48'E), 28.iii.75; *JM4729, Kissing Point, Townsville (19°14'S, 146°48'E), 27.viii.75; *JM4734, Pallarenda, Townsville (19°12'S, 146°46'E), 30.vii.76; *JM4735, Rowc's Bay, Townsville (19°13'S, 146°47'E), 10.ix.76; *JM4736, Rowe's Bay, Townsville (19°13'S, 146°47'E), 4.x.76; *JM4739, Ross River mouth, Townsville (19°16'S, 146°50'E), 9.viii.84; *JM4740, Tolakea, Townsville (19°09'S, 146°35'E), 30.ix.84; *JM4741, Pallarenda, Townsville (19°12'S, 146°46'E), 10.vi.71; JM4937, Main Beach, Cape Hillsborough (20°55'S, 149°00'E), P. Thompson (QDEH), beachcast, 22.i.85: skull and mandible.

Stenella longirostris Gray, 1828 (Spinner dolphin)

MATERIAL

*JM4719, Michaelmas Reef (16°35'S, 146° 02'E), 1971; JM7300, Tangalooma, Moreton Is. (27°11'S, 153°22'E), Sea World staff, stranded, 7.iv.88: complete skeleton.

***Stenella attenuata* Gray, 1846**
(Spotted dolphin)

MATERIAL

JM5356, Main Beach, Gold Coast (28°00'S, 153°26'E), Sea World staff, stranded, 1986; complete skeleton; JM6433, Eager's Creek, Moreton Is. (27°07'S, 153°27'E), RAP, SVD, beachcast, 5.xii.86: skull and mandible; JM6459 (foetus of JM6433, in spirit).

***Tursiops truncatus* Montagu, 1821**
(Bottlenose dolphin)

MATERIAL

*JM4713, Horseshoe Bay, Magnetic Is. (19°07'S, 146°51'E), 17.viii.71; *JM4715, Horseshoe Bay, Magnetic Is. (19°07'S, 146°51'E), 10.ix.71; *JM4724, Horseshoe Bay, Magnetic Is. (19°07'S, 146°51'E), 7.x.72; JM5241, One Mile, North Stradbroke Is. (27°30'S, 153°24'E), A. Schelechoff: skull and mandible; JM5411, Elcho Is. via Darwin (11°58'S, 135°43'E), S. Wilson: skull; JM5574, Moreton Is. (27°12'S, 153°22'E), QDEH, 19.xii.86: damaged skull; JM6428, Ocean Beach, Moreton Is. (27°11'S, 153°25'E), N. Hawkins, beachcast, 22.ii.87: skull and mandible; JM6436, JM6439, M.M. Bryden: skull and mandible; JM6568, Yellow Patch, Moreton Is. (27°02'S, 153°26'E), T. Ward, J. Kahabka (QDEH), beachcast, 8.v.88: skull and mandible; JM7308, Noosa (26°35'S, 153°08'E), R. Parker, G. McDermott, drowned in shark net, 1.vii.86: head (in spirit); JM8831, Amity Point, North Stradbroke Is. (27°24'S, 153°26'E), E. Durbidge, beachcast, 16.i.92: calf (in spirit); JM8859, Maroochydore (26°40'S, 153°06'E), R. Parker, drowned in shark net, 5.vi.86: skull and mandible; JM10043, Chiggl Chiggl, North Stradbroke Is. (27°25'S, 153°26'E), SVD, 10.ii.92: damaged skull and mandible; JM10114, Point Lookout, North Stradbroke Is. (27°26'S, 153°33'E), RAP, beachcast, 14.viii.93: skull and mandible.

ACKNOWLEDGEMENTS

Stephen Van Dyck helped collect many specimens. Bruce and Carolyn Cowell photographed and prepared many specimens. Sally Elmer illustrated the minke whale larynx. Stephen Marino, X-ray Department, Royal Brisbane Hos-

pital took the radiographs. I am most appreciative of their assistance. Officers of the QDEH notified a number of strandings and assisted with retrieval of specimens as did officers of the QBFP.

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